



Application No.: 10/714,090  
Filing Date: November 14, 2003  
Group Art Unit: 1725

Replacement Sheet 1/5

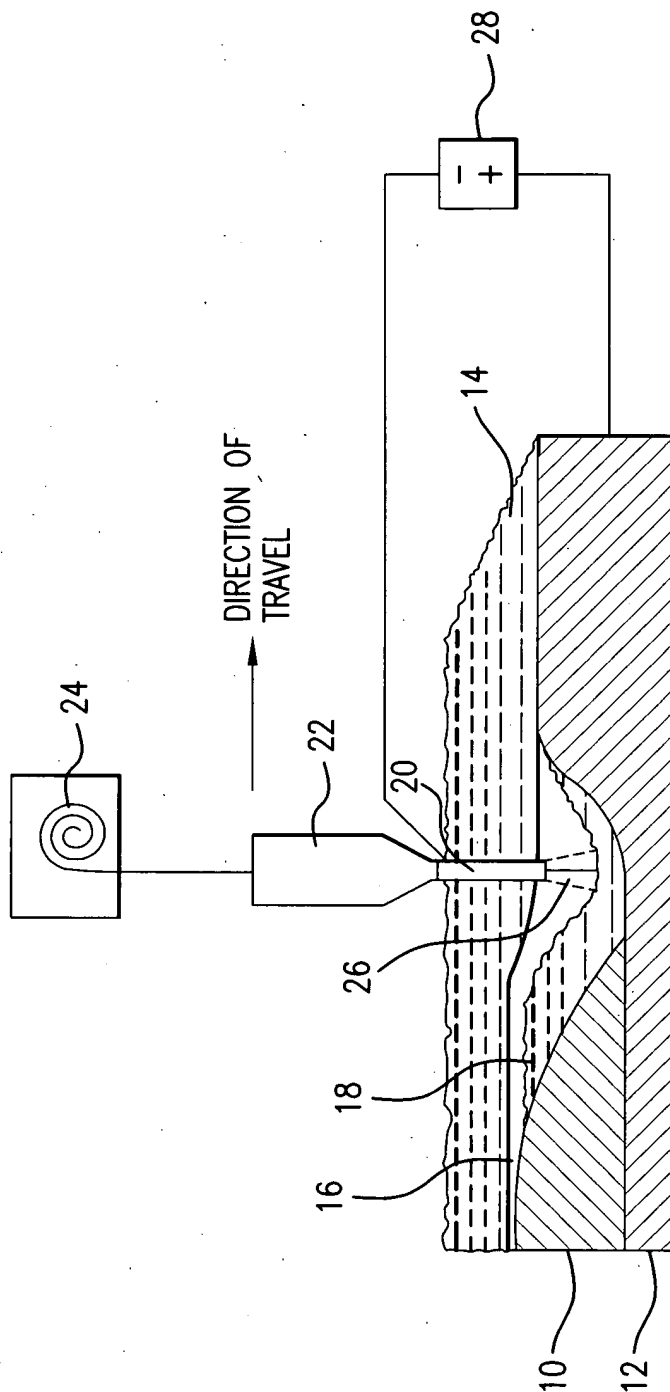


FIG.1

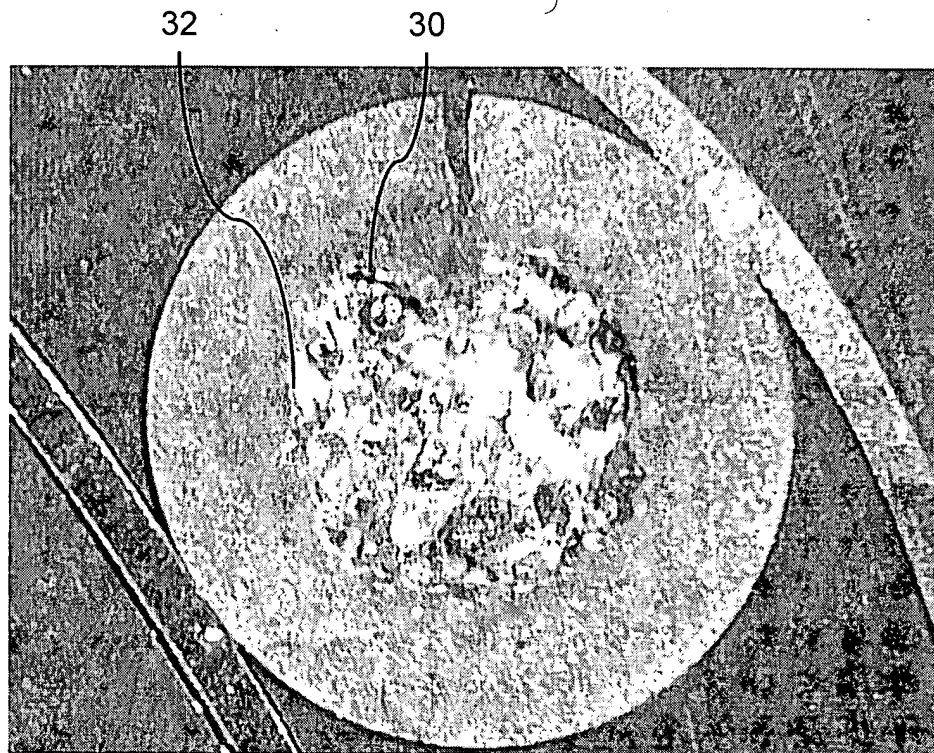


FIG. 2

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TABLE 1

Raw Material	047N-01-003	047N-03-001	047N-03-002	047N-03-003	047N-03-006	047N-03-007	047N-03-008	047N-03-009	047N-03-010	047N-03-011
Fe Powder	83.65	77.25	73.25	73.25	90.75	90.25	87.75	83.25	81.25	61.25
Ferro Mg, Hi C	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Ferro Si	1.60	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Alumina, Al <sub>2</sub> O <sub>3</sub>		7.00	7.00	7.00	0.50	0.50	1.00	3.00	3.00	7.00
Alumina, Al <sub>2</sub> O <sub>3</sub> with Na <sub>2</sub> O <sub>3</sub>		7.00	7.00	7.00		0.50	0.50	3.00	3.00	7.00
MgCO <sub>3</sub>										1.00
MgAl, 40x200m				4.00			2.00		2.00	4.00
CaF <sub>2</sub>										4.00
MgAl, -200m			4.00					2.00		
CaCO <sub>3</sub>	4.00								2.00	4.00
Fluorspar, CaF <sub>2</sub>	5.00									1.00
MgO	2.00									2.00
Approx slag, %	11.00	14.00	18.00	18.00	0.50	1.00	3.50	8.00	10.00	30.00
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

FIG.3

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TABLE 2

Flux Composition	Wt%
Bauxite/ $\text{Al}_2\text{O}_3$	30%
Fluorides	15%
Silicates and binders	10%
Magnesite	10%
Manganese Compounds	10%
Quartz, $\text{SiO}_2$	5%
Silicon	<5%
Mineral Silicates	<5%
Iron	<5%

FIG.4

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TABLE 3  
Deposit Chemistries

Element	Carbon Steels	Low Alloy Steels
C	0.15	0.15
Mn	1.80	2.10
Si	0.90	0.80
P	0.030	0.030
S	0.030	0.030
Cr	—	8.0
Ni	—	4.0
Mo	—	1.0
Cu	0.30	0.75
Ti+V+Zr	—	0.030

FIG.5

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